

Science Enterprise Updates



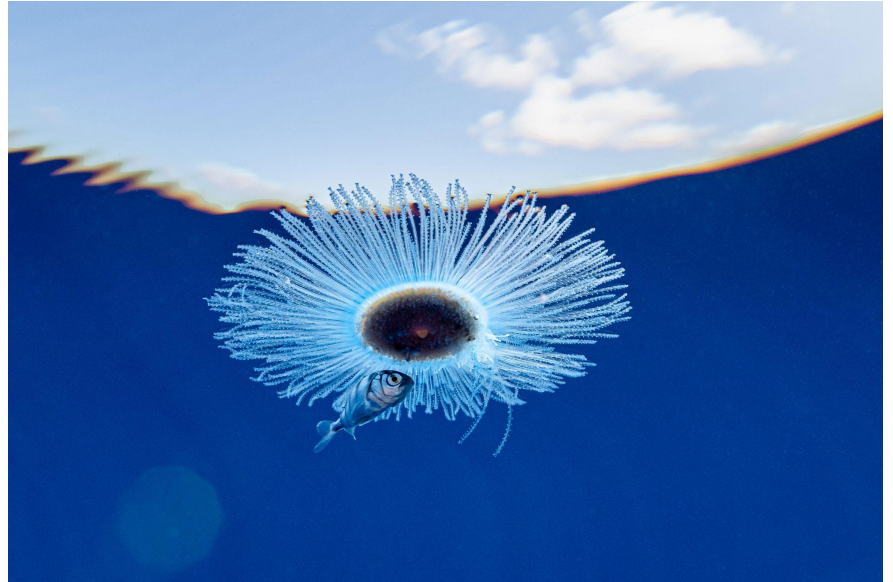
**NOAA
FISHERIES**

**Cisco Werner
NMFS Chief Science Advisor &
Director of Scientific Programs**

**CCC Meeting
May 2023
Key West, FL**

Topics

- Fishery-Independent Surveys and Monitoring Efforts
- Monitoring and Assessments status
- Data Acquisition and Modernization Efforts

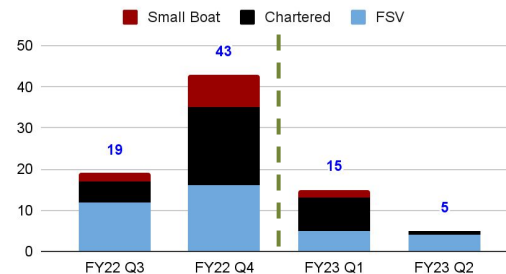


Fishery-Independent Surveys

Survey Status (Total)	FY23 Q2 (Jan to Mar 2023)			
	FSV	Chartered & UNOLS	Small boat	Highlight Surveys
Planned (7)	5	1	1	
Completed (5)	5	1	0	GOA Pollock Acoustic Trawl, Antarctic Marine Living Resources, SE AMAPPS
Delayed / Underway (0)	0	0	0	
Postponed (1)	0	0	1	NE Plankton Sampling / Right Whale Observation



Trend of Completed Surveys vs. Platform Type

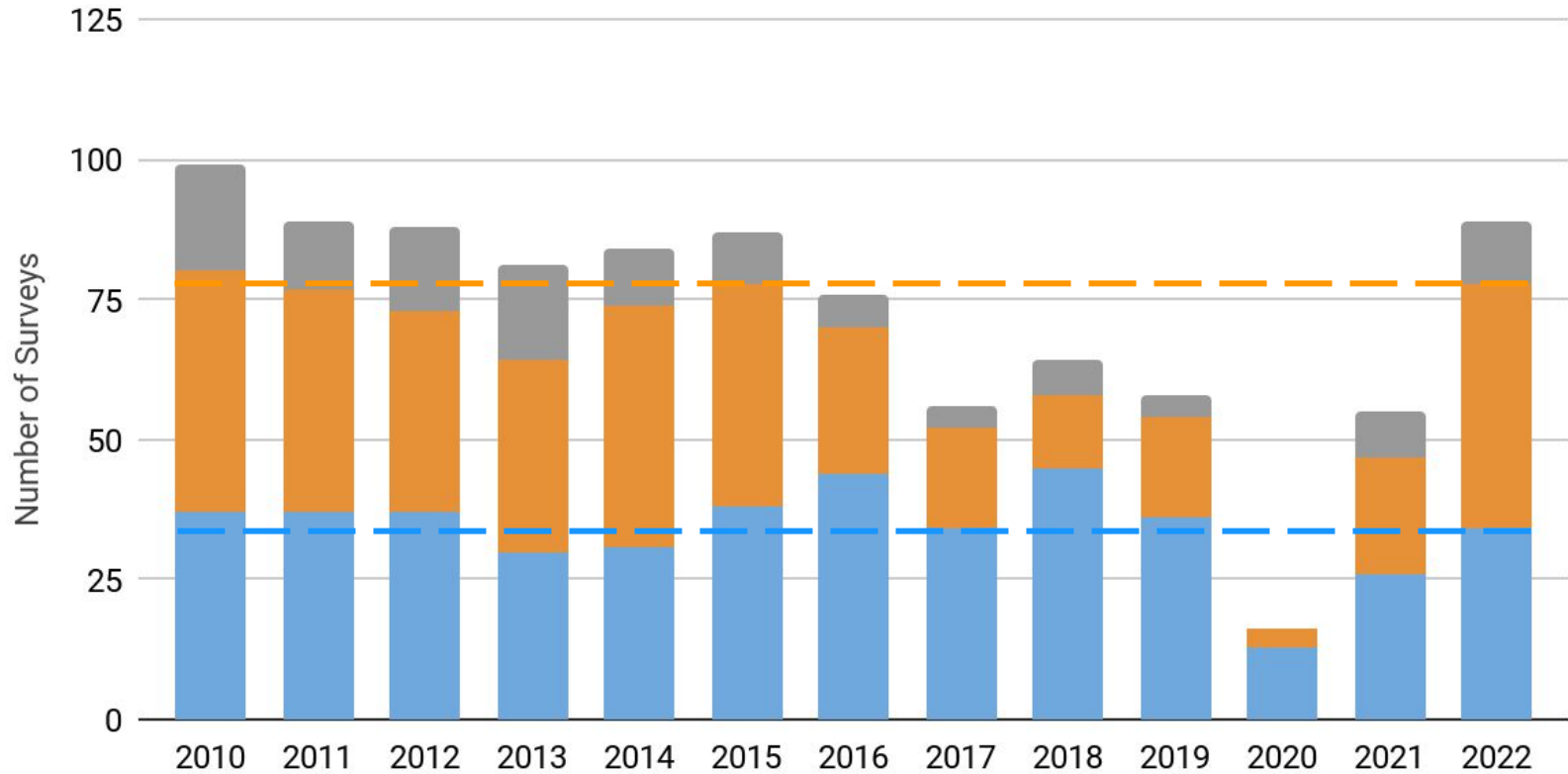


Fishery-Independent Surveys

Survey Status (Total)	FY23 - as of May 16, 2023		
	FSV	Chartered & UNOLS	Small boat
Planned (45)	15	17	13
Completed (25)	13	10	2
Underway (9)	4	4	1
Postponed (2)	1	1	0
Cancelled (2)	0	2	0
Subtotal	33	32	16
Total	83		

Survey Trend - Small Boat / Chartered / FSV

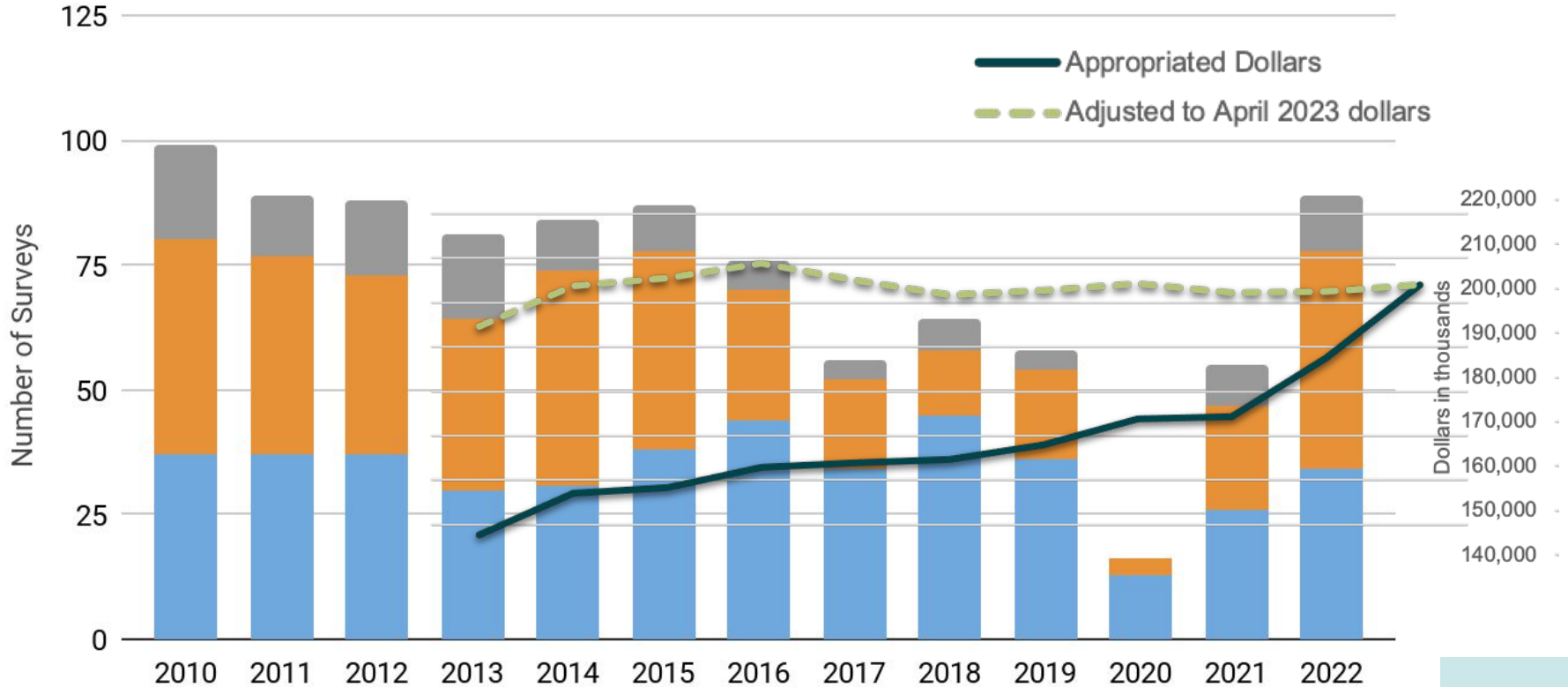
Small Boat Chartered FSV



Survey Trend - Small Boat / Chartered / FSV

Small Boat Chartered FSV

Fisheries Data Collections, Surveys, and Assessments PPA Timeline



Survey and assessment enterprise

Post-COVID recovery in our survey and assessment enterprise in the past two years; challenges remain.

- **Stability of the survey enterprise** (~11 delays in FY23) and related data collection
 - Accelerate use of advanced technologies, fleet recapitalization, mid-life repairs.
- **Increased requests and need for additional assessments** (e.g., ecosystem, climate-ready considerations, other)
 - Revisit guidelines and best practices for stock assessments, stock assessment frequency, etc.
- **Processing samples** (life history) **and developing advanced models** (climate-ready stock assessments)
 - Advanced tech approaches and CEFI (Climate, Ecosystems and Fisheries Initiative)
- **Staff are facing increased workloads** and presently unable to fully backfill resulting understaffing:
 - Revisit existing data approaches and pace of assessments, while continuing to work to fill positions

NOAA Fleet and Professional Mariners

Professional Mariner (PM) Staffing Challenge

- Industry wide challenge
- 31% vacancy rate
- 20% average attrition across positions

Why?

- Legacy staffing model
- Oil/Gas competition, offshore wind energy
- COVID-19
- Strict cultural standards
- Changing workforce
- Quality of life – NOAA lacks competitive crew rotations

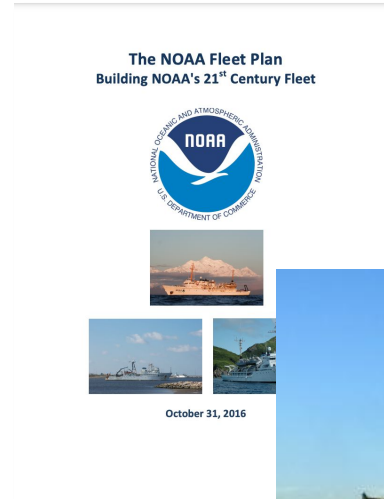
Actions

- Updating policies to support competitive crew rotations (2:1)
- Growing mariner staffing annually to support rotations
- Respectful Workplace Training, DEI&A
- Recruitment & Retention Bonuses
- Contract licensed/unlicensed labor
- Expanding VSAT, StarLink
- 200% increase to training budget
- Total Worker Health/Mental health support.

PC: AOC

Fishery-independent data collection (next steps)

- Fleet Recapitalization Plan
 - Class A ships (*Oceanographer* & *Discoverer*)
 - Class B ships (charting & surveying vessels)
- Analysis of Alternatives - AoA (Class C* ships)
- Mid-Life Repairs (schedule/FSVs)
- Essential Data Acquisition
(Advanced Tech/Strategic Initiatives)

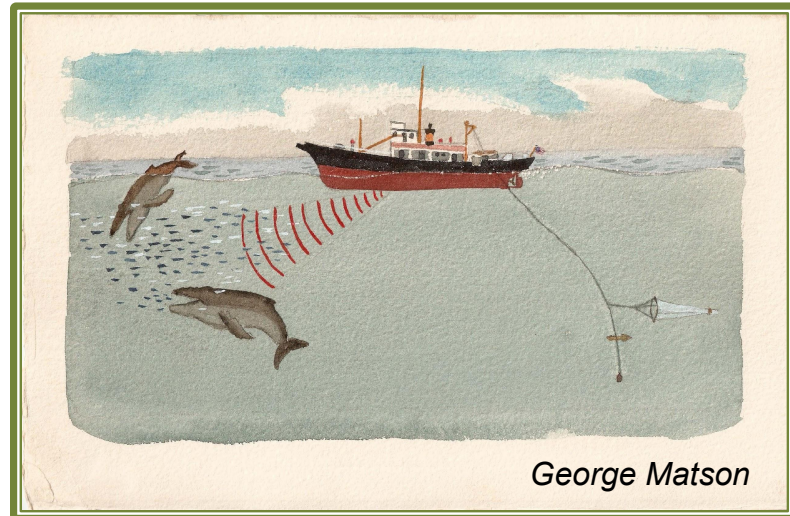


Future goals for data acquisition

- Increase efficiency of traditional platforms, e.g., survey consolidation
- Strategic initiatives to modernize and transform advanced technologies

Advanced Technologies:

1. UxS
2. 'omics
3. acoustical systems (active and passive)
4. optical systems
5. remote sensing
6. R&D for aging/life-history
7. Artificial intelligence/Machine learning



Recapping and closing

Continued challenges

- Fishery-Independent Surveys and Monitoring Efforts
- Monitoring and Assessments (staffing and support)

Ways forward

- Data Acquisition and Modernization Efforts
- Inclusion of Climate-Ready Considerations



Thank you



NOAA Fleet and Professional Mariners

Professional Mariner Staffing Challenge

- Skilled professional mariners are the lifeblood of the NOAA Fleet
- Industry wide challenge
- 31% vacancy rate
- 20% average attrition across positions
- Staffing requirement to allow PM's to rotate far exceeds current strength of 352 PM's onboard meaning some work 11 months per year attached to a ship.

Why?

- Legacy staffing model
- Pressures from Oil/Gas competition, offshore wind energy
- COVID-19
- Strict cultural standards
- Changing workforce
- Quality of life – NOAA lacks competitive crew rotations

Actions

- Updating HR policies to support competitive crew rotations (2:1)
- Growing mariner staffing annually to support rotations
- Respectful Workplace Training, DEI&A
- Fully staffed recruiting department – *we can hire!*
- Social media vs. career fairs
- Cadet Shipping Program
- Recruitment Bonus
- Retention Bonus
- Contract licensed/unlicensed labor
- Expanding VSAT, StarLink
- Annual Safety Culture Survey
- 200% increase to training budget
- Investing in exercise equipment, equipment to cook healthy food
- Total Worker Health/Mental health support.
- Zero tolerance for toxic behavior

PC: AOC